BU Department of Computer Science

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Using Public Utilities to Minimize Crime

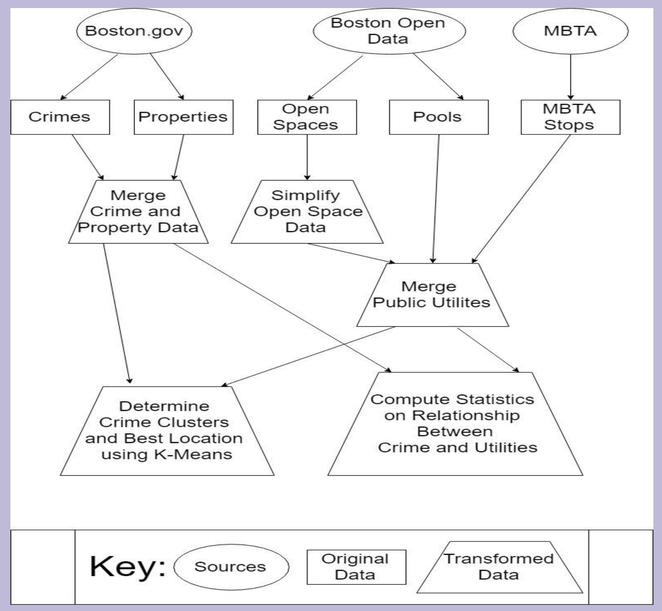
Introduction

With the development of urban environments, it is imperative that policy-makers allocate resources toward public works projects for the benefit of the community. However, such policy-makers may be incentivized to localize the benefit that the "community" receives to a particular area. Ironically and unfortunately, these resources tend to go to those who need it least in order to attract wealthy people to certain areas and localize those with lower incomes to higher crime areas.

Thus, I am interested in analyzing how crime is affected by public services in Boston. In theory, creating more public utilities should decrease the associated crime in the area as there would be cheap, fun, and legal ways to occupy time instead of resorting to crime. Such an analysis can bring to light the issue at hand to the citizens and policy-makers who may be unaware of such issues.

Perhaps it is even possible, with such a data-driven analysis to influence data-driven decision making to determine where to develop future projects in order to maximize its utilitarian impact per dollar amount. Indeed, such a future would certainly align with a utopic view of a truly smart city.

Methods

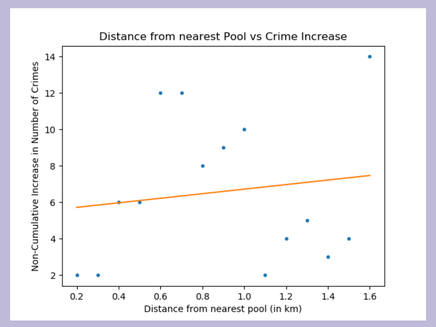


Future Work

- Assess relative crime rate by normalizing crime rate data with **foot traffic data**
- Determine if installation of public services actually decreases crime using **historical data**

Results

To what extent do public utilities correlate with crime?



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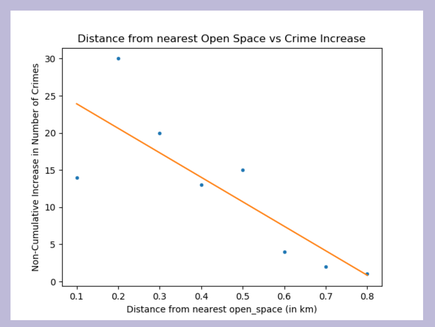

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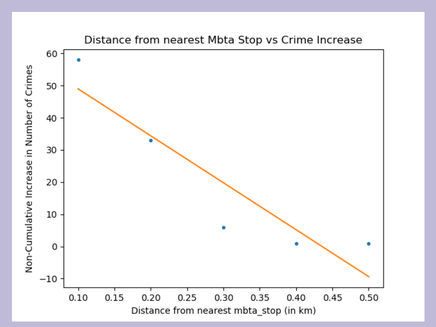

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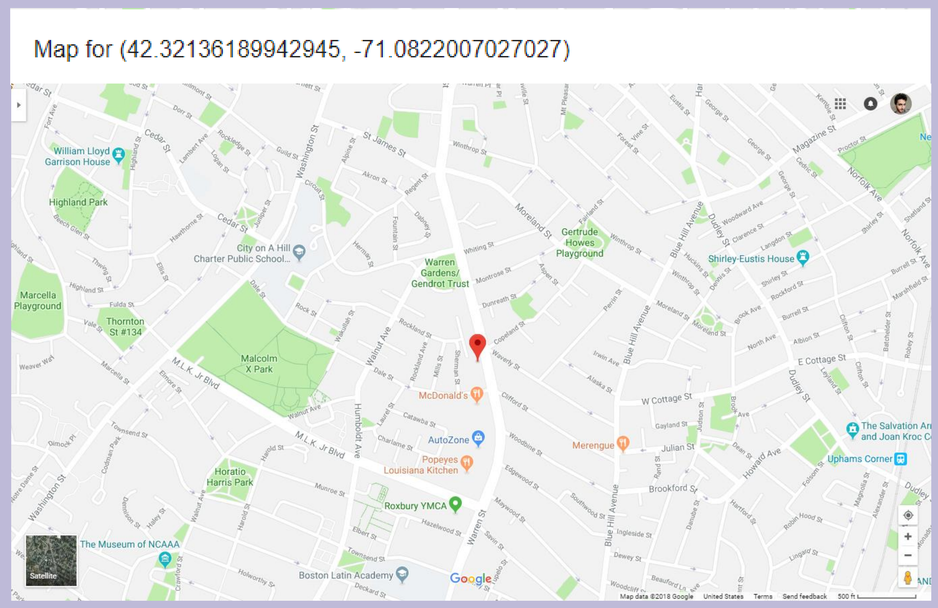
Summary:

- Swimming pools are associated with slightly less crime
- Open spaces are associated linearly with more crime
- MBTA Stops seem to be epicenters of crime!

That's nice, but where should we put the pool?



Theoretically, this would be the best area to place a public utilities in Boston as it has a high crime rate and low access to public utilities.

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